REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-40, 43-47, 49-52, 58-65 are in this Application. Claims 1-40, 43-47, 49-52 have been withdrawn from consideration. Claims 53-55 have been rejected under 35 U.S.C. §103. Claims 58-62 have been allowed. Claims 41-42, 56 have been canceled in a previous communication and claims 48, 53-55 and 57 have been canceled herewith. Withdrawn claim 43 has been amended herewith. New claims 63-65 have been added herewith

The Application now comprises, after amendments, claims 1-40, 43-47, 49-52, 58-65, of which claims 1, 33, 43, 49, 58 and 59 are in independent form..

Claim Amendments

Withdrawn claim 43 has been amended to include the feature, found in now canceled claim 48, of using a state machine model which comprises machine states corresponding to physiological states of the patient

New claims 63-65 depend from allowed claim 58 and include subject matter previously recited in claims 53, 54 and 57, now canceled.

35 U.S.C. §103 Rejections

Claims 53-55 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pichlmayr *et al.* in view of Kaplan *et al.*

Claim 57 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Pichlmayr *et al.* in view of Kaplan *et al.* and further in view of Moore-Ede *et al.*.

In regard to independent claim 53, the Examiner identified in Pichlmayr *et al.* some elements of the claim, but acknowledges that Pilchmayr *et al.* do not disclose adaptively segmenting the signals into a sequence of quasi-stationary segments, where the segments are clustered responsive to features extracted from the segments, and assigning membership values to the segment clusters based on the association between features of the signal for evaluation of the patient condition.

The Examiner, however, states that Kaplan *et al.* teach sleep analysis comprising adaptive segmentation of a captured biosignal into quasi-stationary segments that are then clustered responsively to extracted features, where intervals in the time period are assigned memberships based on the segment clusters, in order to provide quantitative analysis of the captured biosignals.

The Examiner deems claim 53 unpatentable stating that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the system of Pilchmayr *et al.* with the processor configured to perform adaptive segmentation into quasistationary segments and assign membership values, as taught by Kaplan *et al.*, in order to provide quantitative analysis of the captured signals.

In regard to dependent claim 54 the examiner states that Kaplan *et al.* teach using the membership values to determine sleep stages, in order to determine the patient's current state. The Examiner deems claim 54 unpatentable stating that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the system of Pilchmayr *et al.* in view of Kaplan *et al.* with the processor configured to use the membership values to determine sleep stages, as taught by Kaplan *et al.*, in order to determine the patient's current state.

In regard to dependent claim 57 the Examiner acknowledges that Pichlmayr *et al.* in view of Kaplan *et al.* do not disclose assigning fuzzy membership values to the intervals. The Examiner, however, states that Moore-Ede *et al.* teach using fuzzy systems to analyze sleep signals, including assigning fuzzy membership values to data and intervals in order to obtain useful information from the data. The Examiner deems claim 54 unpatentable stating that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the system of Pichlmayr *et al.* in view of Kaplan *et al.* with the processor configured to assign fuzzy membership values to the intervals, as taught by Moore-Ede *et al.*, in order to obtain useful information from the data.

While traversing the Examiner's rejection of claims 53-55 and 57, Applicants, in the interest of expediting the issuance of the Application, have canceled claims 53-55 and 57, thereby nulling the number of rejected claims.

Rejoinder

It is noted that claim 43 includes all the limitations of allowed claim 58, and claims 49 includes all the limitations of allowed claim 59. A rejoinder of claims 43 and 49 and their dependent claims 44-47 and 50-52, in accordance with 37 C.F.R. §1.104 is respectfully requested.

In view of the above amendments and remarks it is respectfully submitted that the claims are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

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Enclosure:
- Additional Claims Transmittal Fee